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Southeastern South Dakota Farm Record Summary 1951 Ninth Annual Report

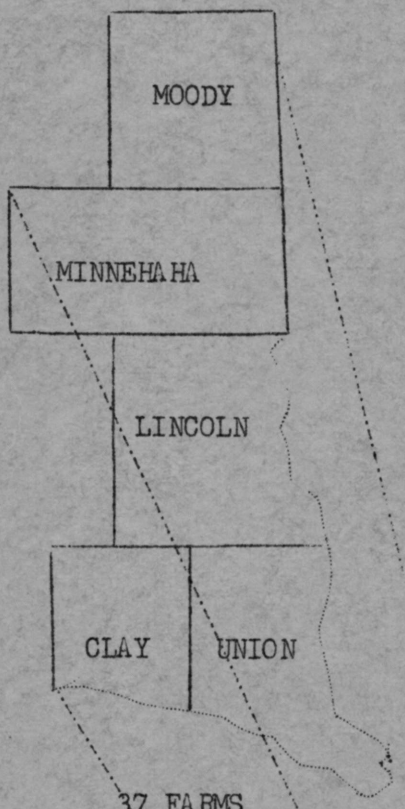
Allen R. Clark

1951

NINTH ANNUAL REPORT

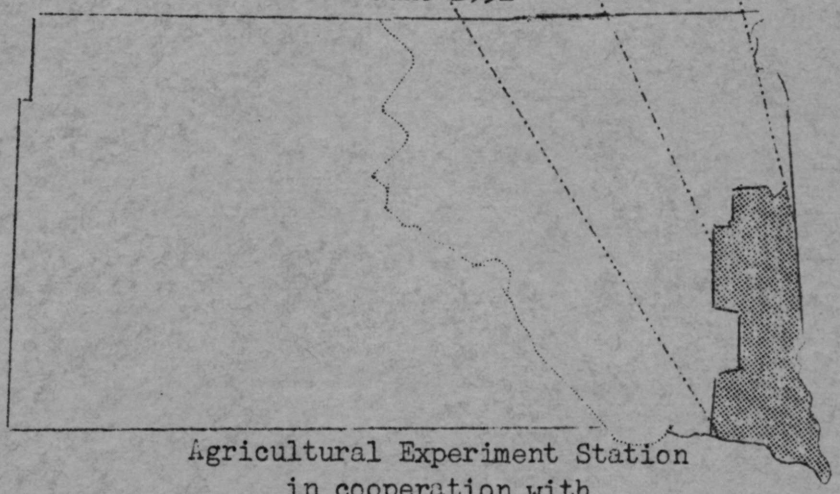
southeastern south dakota

farm record summary



37 FARMS

Agricultural Economics Pamphlet No. 42
June 1951



Agricultural Experiment Station
in cooperation with
Agricultural Extension Service
South Dakota State College
College Station, South Dakota

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ABOUT THIS REPORT

This is the ninth annual report of the farm record study in Southeastern South Dakota which was started by the experiment station in 1943. This report includes farm records from the following counties: Moody, Minnehaha, Lincoln, Clay and Union.

Farmers cooperating in the study kept records of their farm expenses and receipts, beginning and ending inventories, crop and livestock production, and farm produce used in the household. Some supplemental information on management practices, crop varieties, family and hired labor, is gathered when the books are closed at the end of the year.

NINTH ANNUAL REPORT OF THE SOUTHEASTERN SOUTH DAKOTA RECORDS PROJECT, 1951

Prepared by Allen R. Clark

FARM EARNINGS ARE BELOW THE FIVE YEAR AVERAGE FOR THIS AREA

Farm earnings were lower in southeastern South Dakota in 1951. Farm accounts kept by 37 selected farmers in the southeastern area of South Dakota indicate that the farmer's labor earnings in 1951 were considerably below those in 1950.

For their labor and management these farmers got $1537 when full credit is given for meat, eggs, milk, and other products used by their families. This compares with $6253 for 1950 and $6121 average for the five year period 1946-50.

In addition to their cash expenses these farmers were charged 5 percent interest on the land, buildings, machinery, and livestock investments. Also included was a charge of $150 per month for unpaid family labor.

If the farmer owned all his land and equipment, he received these non-cash expenses as income. But many farmers had to pay part of this as rent for the use of the land. Others may have had to pay interest on money borrowed with which they bought their machinery and livestock or with which they hired additional power equipment.

LOW INCOME DUE TO PRICE SQUEEZE

In 1951 the farmers began to have a price squeeze applied to them; while farm receipt prices were still relatively high the prices paid by farmers has increased considerably. This brings a narrowing margin to the farmers and makes it extremely difficult to show a sizeable profit.

LATE, COLD GROWING SEASON AND EARLY FROST

A late spring got the crops off to a slow start in 1951. Precipitation was slightly above normal with the spring months being quite a little above normal. See the Graph Chart I for exact monthly distributions of rainfall.

INVENTORIES

In order to show a clear picture of the farmer's operations, the valuations of land, livestock, machinery and other equipment was held constant -- that is, a cow was valued at the same price at both the beginning and the end of the year. Grain inventories were recorded at an average figure so that the comparisons between those storing the grains and those selling grains would not be too badly distorted. With this procedure we found a decrease in inventory of $1852 on the average for the farmers in this area. This may have been partly due to a decreased grain inventory caused by an early frost and soft corn.

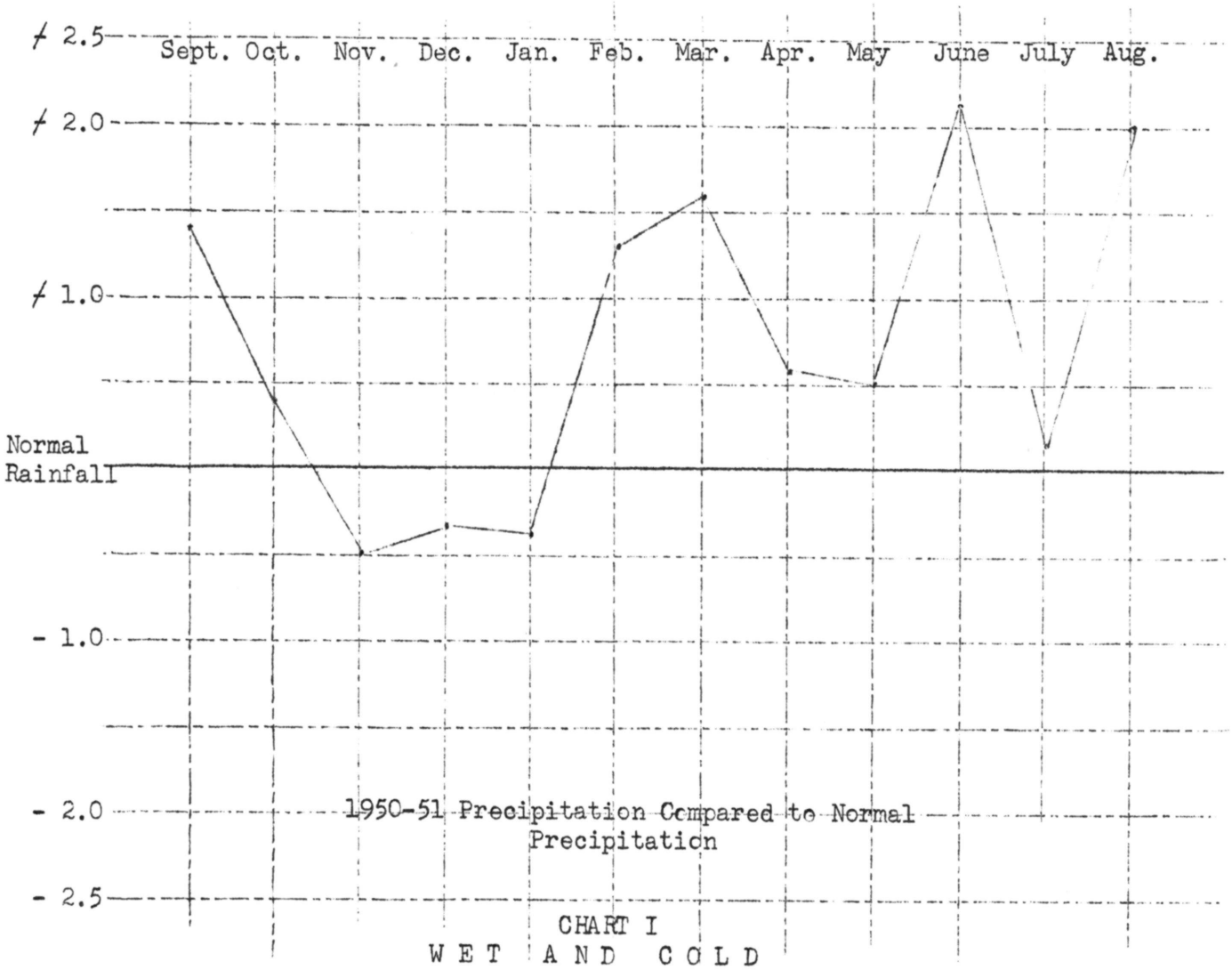

CHART I

W E T A N D C O L D

The work unit standards used in this report are shown in Table 1.

Table 1.

Crops			Livestock		
Item	Per	No. of work units	Item	Per	No. of work units
Corn, grain	Acre	1.0	Milk Cows	Cow	14.0
Corn, hogged off	"	.6	Other dairy cattle	A.U.	4.0
Corn & cane silage	"	1.5	Beef cows	Cow	4.0
Sorghum	"	1.0	Other beef cattle	A.U.	4.0
Soybeans	"	1.0	Bulls	Head	4.0
Potatoes	"	4.0	Litter	Litter	4.0
Small grain	"	.7	Other hogs	Head	.5
Alfalfa hay	"	1.0	Ewes	Head	.5
Other tame hay	"	.7	Other sheep	Head	.2
Wild hay	"	.5	Hens	100	20.0
Annual Pasture	"	.3	Chickens raised	100	4.0

DEFINITIONS OF TERMS AND MEASURES USED

1. Operator's labor earnings - is the measure of financial success used in this report. It is a measure of the relative financial success of a farmer and represents the returns for his year's work (including family living from the farm), above all farm expenses, and a deduction for the value of unpaid family labor and an interest charge for the use of farm capital.

2. Productive man work units - is a measure of size of business used in this report. A work unit represents the amount of work that a farm worker can do in a 10-hour day working at average efficiency. For example, it requires about 10-hours of man labor to produce an acre of corn and 140 hours to care for a milk cow for a year. Thus an acre of corn would represent 1 work unit and a milk cow 14 work units.

3. Work unit per worker - is a measure of the efficient use of labor on a farm.

4. Livestock increase - is the value of gross livestock sales less purchases and plus or minus changes in inventory values of livestock from the beginning to the end of the year.

5. Crop yield index - is a comparison of the yield per acre of all crops on a given farm or group of farms with the average yield of all crops for the entire group of farms studied. For example, a farm with a crop yield index of 105 means that the average yield for this farm is 5 percent greater than the average.

6. Livestock returns per $100 feed fed - is a measure of the efficiency in converting feed into livestock products. It is obtained by dividing the value of the net livestock increase by the value of feed fed to all productive livestock during the year. This figure is multiplied by 100.

7. Part-owner - is a farmer who owns part of the land he operated and rents the rest.

Table 2. Summary of Farm Inventories, 1951*

Item	Your Farm	Average of all farms	12 most Profitable farms	12 least Profitable farms
	Beginning			
Horses and mules	$____	61	62	105
Productive livestock (total)	$____	10,755	12,144	12,838
Cattle	____	8,024	7,309	9,372
Hogs	____	2,101	3,371	2,617
Sheep	____	461	1,303	572
Poultry	____	169	161	277
Feed and Seed	$____	5,705	5,343	6,031
Mach. & Equipment (total)	$____	7,267	7,842	7,443
Power Machinery	____	3,522	4,241	3,176
Crop and gen. mach.	____	3,289	3,243	3,646
Livestock equipment	____	457	359	621
Improvements (farm)**	$____	5,557	3,639	7,852
Land	$____	24,728	16,359	17,986
Total Farm Capital	$____	54,097	39,895	43,798
	Ending			
Horses and mules	$____	91	82	92
Productive livestock (total)	$____	16,601	18,161	18,874
Cattle	____	10,664	10,592	12,873
Hogs	____	2,511	2,583	2,386
Sheep	____	3,094	4,515	3,334
Poultry	____	332	471	381
Feed and Seed	$____	5,496	6,500	4,964
Mach. and equipment (total)	$____	5,676	6,678	5,545
Power machinery	____	2,252	2,565	2,056
Crop and gen. mach.	____	3,150	3,849	3,159
Livestock equip.	____	274	264	330
Improvements (farm)**	$____	3,741	3,424	3,449
Land	$____	18,898	16,679	21,643
Total Farm Capital	$ ____	43,052	42,741	41,683

* The summaries of farm earnings and inventories were prepared as though the operators were all full owners. This has been done in order to more nearly compare all farmers on an equal basis. Each cooperator, however, received an earnings statement on the basis of his actual tenure situation and in table 15 a comparison is made between owners, part-owners, and tenants. In order to eliminate "paper profits" due to inflation, livestock inventories were held constant. That is if "cows" were inventoried at $200 at the beginning of the year then "cows" were inventoried at the same figure at the end of the year.

** Does not include value of dwelling.

Table 3. Crop Acreage Summary, 1951

Item	Your Farm	Average of all Farms	12 most Profitable Farms	12 least Profitable Farms
Corn for grain	____	91	88	100
Sorghum forage	____	13	13	0
Corn and cane silage	____	15	10	23
Soybeans	____	22	13	30
Miscellaneous	____	2	0	2
Total Row Crops	____	105	99	116
Wheat	____	65	65	0
Oats	____	66	60	76
Barley	____	54	34	83
Rye-grain	____	10	0	10
Flax	____	25	17	25
Total Small Grain	____	83.5	73	104
Alfalfa hay	____	28	34	31
Other tame hay		13.8	19	27
Total Tame hay		39	40	40
Rotation Pasture		22	22	29
Total Tame Hay & Past.		44	48	48
Idle and Fallow		80	80	--
Total Tillable Land		236	226	267
Native hay	____	19	11	43
Native pasture		38	40	44
Total Acres Operated		296	279	331
% of farm in cropland	____	78.5	78.7	78.8
% of cropland in row crops	____	45.3	44.7	42.7
% of cropland in sm. grain	____	34.4	31.2	38.0
% of cropland in hay & past.	____	18.6	21.7	17.6

Table 4. Crop Yield Summary, 1951

Item	Your Farm	Average of All Farms	12 most Profitable Farms	12 Least Profitable Farms
Corn for grain	____	35.4	39.5	29.2
Soybeans	____	20.7	19.8	22.0
Wheat	____	----	----	----
Oats	____	47	45.7	47.1
Barley	____	20.2	25.0	23.0
Rye	____	18.0	----	18.0
Flax	____	10.7	10.7	10.8
Alfalfa hay	____	2.4	2.0	2.5
Other tame hay	____	1.2	1.1	.8
Corn & Sorg. fodder	____	----	----	----
Silage	____	8.3	11.8	6.2
Native hay	____	.9	1.5	.5

Table 5. Livestock Summary, 1951

Item	Your Farm	Average of All Farms	12 most Profitable Farms	12 least Profitable Farms
Horses	____	1.8	1.8	2.0
Beef cows	____	12.3	9.2	16.2
Other beef cattle	____	19.8	21.7	19.7
Milk cows	____	7.1	6.7	7.3
Other dairy cattle	____	3.9	5.2	2.1
Bulls	____	1.3	1.0	1.3
Ewes	____	45.4	46.5	56.7
Other sheep	____	89.8	87.2	101.7
Litters of pigs	____	21.3	21	20.2
Hens and pullets	____	210.5	191.5	238.0
Total units prod. livestock*	____	48.6	47.1	54.7

* A unit of productive livestock is equal to one mature cow, 2 yearlings, 7 sheep, 14 lambs, 5 sows, 10 pigs or 100 hens.

Table 7. Summary of Farm Earnings, 1951

Item	Your Farm	Average of all Farms	12 most Profitable Farms	12 least Profitable Farms
CASH FARM RECEIPTS				
Hogs	____	5,052	5,648	5,675
Cattle	____	7,746	7,262	8,605
Dairy Products	____	1,046	1,245	907
Eggs	____	928	976	949
Poultry (includes turkeys)	____	243	275	276
Sheep and wool	____	1,700	3,107	1,039
Crops	____	3,193	4,634	2,527
Machinery & equipment	____	1,020	1,884	380
Farm program payments	____	176	193	190
Income from work off farm	____	364	486	266
Miscellaneous	____	300	324	256
(1) TOTAL FARM SALES	____	18,410	19,560	18,238
(2) Increase in inventories	____	5,685	6,868	5,243
(3) Family living from farm	____	631	586	667
(4) TOTAL FARM RECEIPTS (sum. 1-3)	____	24,726	27,014	24,148
FARM EXPENSES				
Auto (farm share)	____	312	217	402
Power, mach. & equip. (upkeep)	____	548	418	611
Power, mach. & equip. (new)	____	2,548	1,741	1,829
Farm Improvements (upkeep)	____	543	246	941
Farm improvements (new)	____	1,396	1,136	6,004
Hired labor	____	611	566	816
Crop expenses	____	1,653	1,569	1,868
Feed bought	____	3,252	3,053	3,842
Livestock bought	____	7,492	5,451	7,917
Other livestock expenses	____	247	214	314
Taxes	____	399	451	299
Insurance	____	154	149	172
Miscellaneous farm expenses	____	791	911	802
(5)TOTAL FARM PURCHASES	____	17,902	14,703	19,700
(6) Decrease in inventories	____	1,852	2,892	1,575
(7) Board furnished hired labor	____	66	60	----
(8) Unpaid family labor ($150 per mo.)	____	1,218	882	1,505
(9) Interest on farm capital (5%)	____	2,151	2,268	2,084
(10) TOTAL FARM EXPENSES (sum 5-9)	____	23,189	20,805	24,864
(11) OPERATOR'S LABOR EARNINGS	____	1,537	6,209	- 716
(12) RETURNS TO CAPITAL & FAMILY LABOR (sum8/9/11)	____	4,906	9,359	2,873

FACTORS CAUSING VARIATIONS IN EARNINGS

The primary cause of variations in earnings in 1951 is the uncontrollable factor weather combined with size and type of operation. When we talk about profits then we can say that in 1951 the farmer making the most profit is the farmer who has done the best job of keeping his costs down and still producing good quantities of farm products.

Within this area we find a great variation in size of farm. It is rather difficult to make a small farm pay a large profit; also we find a number of farmers who are handicapped by a shortage of capital. It takes money to make money. This has never been quite as true as it was in 1951 because the farmer had a few opportunities to make purchases at considerable saving if he had the money to use at that time, but these opportunities were short lived and by the time a loan could be arranged were usually gone.

In the past we have found that the farm management associations seem to recommend large farms and large investments. This recommendation of large farms and large investments has been almost unanimous during the past 10 years. In 1951 we began to find farmers who had large scale farms and high investments in equipment and machinery losing their first place in rate earned and total amount earned. A very few of the large scale operators have shown a nice profit. However, they have a great deal more difficulty in showing this profit. The management factor has really come to the front. In the next year or two we are going to have to place a major emphasis on good management rather than on large size of operation.

Table 8. Farm Organization and Management Efficiency Factors, 1951

Item	Farm	Average of all Farms	12 most Profitable Farms	12 least Profitable Farms
Operator's Labor Earnings	$___	1,537	6,209	- 716
Total operated	___	296	279	332
Capital Investment				
Total capital managed	$___	43,052	42,741	41,683
Productive livestock	$___	16,601	18,161	18,874
Power and machinery	$___	5,676	6,678	5,545
Rate earned on investment	___	10.9	17.1	3.1
Size of Business				
*Work units (total)	___	468	469	499
On crops	___	206	196	226
On livestock	___	265	276	274
Labor Utilization				
Number of workers	___	1.3	1.3	1.4
*Work units per worker	___	344	352	376
Crop acres per worker	___	179	177	199
Animal units per worker	___	38	37	40
Livestock increase per worker	___	8,402	9,719	8,547
Crop Organization and Efficiency				
Total tillable land	___	236	226	267
% cropland is of farm	___	78.5	78.7	78.8
% cropland in row crops	___	45.3	44.7	42.7
% cropland in small grain	___	34.4	31.2	38.0
% cropland in hay & pasture	___	18.6	21.7	17.6
Livestock Organization and Efficiency				
Number of beef cows	___	12	9	16
Number of milk cows	___	7	7	7
Number of ewes	___	45	46	57
Number of litters of pigs	___	21	21	20
Number of hens	___	210	191	238
*Total prod. livestock units	___	49	47	55
*Livestock ret. per $100 feed	$___	137	220	96
Pounds butterfat per cow	___	255	253	239
Eggs laid per hen	___	155	140	146
Pigs saved per litter	___	7.2	5.9	7.0
Power, Mach. & Equipment				
Power invest. per crop acre	$___	9.54	11.35	7.70
Crop mach. inv. per crop acre	$___	13.35	17.03	11.83

* Measures used on thermometer chart on page 10.

THERMOMETER CHART

Compare your forms with others in your area on each of the factor thermometers.

The average for the group is shown by the dark lines.